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THE FIRST RECORD OF BLACK BULLHEAD *AMEIURUS MELAS* (PISCES, ICTALURIDAE) IN SERBIAN WATERS. G. Cvijanović¹, Mirjana Lenhardt², and A. Hegediš¹. ¹Center for Multidisciplinary Studies, University of Belgrade, 11000 Belgrade, Serbia and Montenegro; and ²Siniša Stanković Institute for Biological Research, 11060 Belgrade, Serbia and Montenegro

UDC 59 Ameruius melas(497.11)

Spillmann (1967, quoted by Holčík, 1972) and Banarescu (1968, quoted by Holčík, 1972), who studied the systematics of bullhead in France and Romania, found that the bullhead inhabiting the water-bodies of both countries was not *Ameiurus nebulosus* (Le Suer, 1819), but rather *Ameiurus melas* (Rafinesque, 1820). Brown bullhead (*A. nebulosus*) was introduced in Europe from North America, firstly in France in 1871 (Sotirov, 1968). Rearing began in Germany, from which bullhead spread throughout the Continent (Maletín, 1982). The identification of *Ameiurus* species is difficult (Kottelat, 1997), and there is still a great deal of confusion over their distinctiveness.

On the 14th of June, 2005, in the Danube side channel "Jojkić" (N 44°50'33.1", E 20°27'46.1") near Belgrade, we recorded the presence of *A. melas*, ranging in weight (W) from 11.2 g to 135.6 g, and standard length (L_s) from 70 mm to 173 mm. Specimens were obtained from professional fishermen, who caught them with gill nets, as well from sport fishermen using fishing roads. Also, on 28th of May, 2005, on the lake "Savsko jezero" (N 44°47'20.1", E 20°24'54.6"), we collected two specimens with gill nets. They were held in an aquarium until the 20th of June, when they were analyzed. Their weight (W) was 48.8 g and 97.5 g, their standard length (L_s) 145 mm and 183 mm, respectively. Data on all specimens analyzed are presented in Table 1.

In view of the recognized difficulties in identifying *A. melas*, particularly because of its great morphological resemblance to *A. nebulosus*, we recommend the following key to *Ameiurus* species of North America (<http://collections.oeb.harvard.edu>):

Key to *Ameiurus* species

1a) Adipose fin a flange-like fleshy lobe, well-separated from caudal fin; tail squared, rounded, or forked; adults to over

24 inches TL.....(2)

1b) Adipose fin long, low, and 'keel-like', nearly continuous with caudal fin; tail squared or rounded; adults small, never over 6 inches TL.....(madtoms, *Noturus*)

2a) Tail deeply-forked, lobes pointed; anal fin with 24 to 30 rays; bony ridge connecting skull and origin of dorsal fin; head relatively small and narrow; young with small spots, larger adults blue-black in color without spotschannel catfish *Ictalurus punctatus*

2b) Tail at most moderately forked, lobes more or less rounded; anal fin with less than 25 rays; area in front of dorsal fin compressible, without connecting bony ridge; head large and broad; sometimes mottled but never with small spots(3)

3a) Tail moderately forked, upper lobe usually longer and rounded; head wide and massive; chin barbels lightwhite catfish *Ameiurus catus*

3b) Tail only slightly indented, square or rounded; head large but never massive; chin barbels light or dark(4)

4a) Chin barbels whitish; rear edge of caudal fin nearly straight and rounded; anal fin rays 24 to 27yellow bullhead *Ameiurus natalis*

4b) Chin barbels dark; rear margin of caudal fin slightly notched and squarish; anal fin rays fewer than 24(5)

5a) Well-developed serrations on posterior edge of pectoral spine; anal fin rays usually 22 to 23; gill rakes 11-15; lacking dark pigment on anal fin membranebrown bullhead *Ameiurus nebulosus*

Table 1. Length, weight, and meristic traits of *A. melas* specimens studied from the Danube side channel "Jojkić" (n=10) and from the Savsko Jezero Lake (n=2).

	L _s (mm) (standard length)	W (g) (body weight)	N _o of anal fin rays	N _o of gill rakes
Danube side channel "Jojkić"	127.9 ± 38.36 (70–173)	66.75 ± 49.85 (11.2–135.6)	18.8 ± 0.79 (18–20)	16.1 ± 0.32 (16–17)
Lake "Savsko jezero"	164 ± 26.87 (145–183)	73.15 ± 34.44 (48.8–97.5)	18 ± 0	18 ± 1.41 (17–19)

5b) Serrations on pectoral spine poorly developed or absent; anal fin rays 17 to 21; gill rakers 16-20; dark pigment on membranes of anal finblack bullhead *Ameiurus melas*

References: - Holčík, J. (1972). *Věstník Československé společnosti zoologické*, XXXVI (3), 187–191. - Kottelat, M. (1997). European freshwater fishes. *Biologica*, 52 (Suppl. 5), 1-

271. - Малетин, С. (1982). Варирање таксономских карактера *Ictalurus nebulosus* Le Sueur, 1819 зависно од локалитета. *Зборник за природне науке*, 62, 111–135. - Сотиров, С. (1968). Екологија америчког сомiћа (*Ictalurus nebulosus* Le Sueur, 1819). Докторска дисертација. Природно-математички факултет, Београд.